

P. HANNAY.

BLANK FOR BANK NOTES, BILLS, &c.

No. 15,486.

PATENTED AUG. 5, 1856.



UNITED STATES PATENT OFFICE.

PETER HANNAY, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVED BLANK FOR BANK-NOTES, BILLS, &c.

Specification forming part of Letters Patent No. **15,486**, dated August 5, 1856.

To all whom it may concern:

Be it known that I, PETER HANNAY, of Washington city, in the District of Columbia, have invented a certain new and useful improvement in the production of blanks for bank-notes, bills, checks, treasury bonds, scrip, stock-certificates, &c., to prevent counterfeiting; and I do hereby declare that the following is a full, clear, and exact description thereof.

The nature of my invention consists in an improved method of producing blanks for bank-notes and other like purposes by first producing a photographic or other picture by the action of light on chemically-prepared paper suitable for any such purpose, and then printing upon this paper, over the picture, by copper-plate or otherwise, the form of the note, certificate, &c., which is then ready to be signed by the proper officials.

The photographic picture is first taken by the camera obscura on plate glass which has been previously coated with albumen or colodion, according to the process well known to photographers. This picture is what is termed by artists a "negative"—that is to say, the reverse as regards light and shade of a true picture when held against the light. After the picture has been fixed in the usual way it is varnished over with transparent varnish to preserve it. A positive picture is then taken from this negative by placing a sheet of paper previously washed with a solution of nitrate of silver, &c., and dried in a dark room in close contact with the plate and exposing it to the rays of the sun from one to five minutes, according to circumstances. The picture is then fixed and washed out well with pure water to prevent it fading. When thoroughly washed and dried any number of negatives on glass may be taken from it and arranged side by side in a frame to the size of a sheet of bank-note paper. In this way the photographs may be printed in sheets very rapidly, which, when washed and dried, are ready to receive the copper-plate or other impression to designate the name and character of the note or other certificate. This is but one of a variety of processes well known to photographic artists for producing very similar results, and although I consider it the best adapted to this purpose, I do not intend to confine myself to this mode of producing the photograph. For example, let us suppose the photographic design to be the portraits

of the entire firm or the president and cashier of a bank in group. Over this is printed a fine copper-plate, lithograph, or other impression of the name and style of the firm and form of note or other certificate and afterward signed by the proper officials. If an attempt is made to duplicate this by photography or other like process, the printed and written parts will be photographed also, which will be very easy of detection, as it will not resemble the impression of copper-plate, &c., either in color or appearance, and so with the signatures. If an attempt should be made to copy this photographic picture by an artist with the pencil for the purpose of producing from it duplicates by photography, it is argued that the most skillful painter can never produce a duplicate of nature or of the results of nature so perfectly as not to be distinguishable therefrom; and even if the parties forming the group were to sit for a second picture, it would be impossible to arrange them in precisely the same position, under the effect of the same light, and to produce a picture of corresponding size with likeness of the same expression as in the original. It therefore appears that the only way to duplicate the genuine note is first to extract all the copper-plate or other printing, together with the signatures, dates, &c., and then to photograph from the naked picture; but when we consider the character of that picture we see at once the impossibility of accomplishing the result in this way. The paper having been chemically prepared to receive the effect of the rays of light, that effect is so sensitive to the action of either alkalies or acids as to render it impossible to remove the one without destroying the other.

If desirable, for further security, the ink used may be of different colors; but I do not intend to confine myself to any peculiar character, quality, or color of the ink.

Having thus described my invention, its effects and advantages, what I claim as new, and desire to secure by Letters Patent, is—

The combination of the arts of photography and printing or writing, or both, in the manner substantially as and for the purposes set forth.

In testimony whereof I hereunto subscribe my name this 19th day of July, 1856.

Witnesses: P. HANNAY.

WM. M. SMITH,
ARTHUR C. WATKINS.